

I. *A Letter from the Rev. Henry Miles D. D. F. R. S. to the President, concerning the Storm of Thunder, which happen'd June 12. 1748.*

S I R,

Read June 23. 1748. **I** BEG Leave to communicate to you and to the *Royal Society* some Account of the Effects of a Thunder-Storm, on two adjoining Houses, at *Stretham* in *Surrey*, the 12th Instant, a little after 5 in the Morning.

The preceding Day had been remarkably hot, and in the Afternoon very cloudy, with the usual Indications of an approaching Storm, in the Evening. At 9 at Night, the Wind Southerly, my Barometer stood thus; one, which is the most sensible, at 29 Inches $\frac{7}{10}$ $\frac{3}{100}$; the other at 30. $\frac{2}{10}$ 0. The Thermometers (of *Siffon's* Construction) one without-doors, at 43 Degrees, another within, at 49 Degrees above 0. or the freezing Point.

At one next Morning, a Person apprehensive of the Thunder, upon looking out at Window, was surprized to find an unusual clear Sky, every-where equal to what is observed in frosty Weather, or after a high Wind, except that in a few Places some Thunder-Clouds shewed themselves just above the Horizon.

At 2 we heard Thunder at a Distance: At half an Hour past 3, when I got up, I perceived the Storm approaching apace from the South, where the Wind then was, but the darker Clouds seemed to bear off

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chiefly to the East and West of us, so that I did not think we should hear of any Mischief near us. At 4 we had a smart Shower of Rain, and about 5 two loud Claps of Thunder over our Heads, but pretty high; the Lightning was very pale, and the Flashes large, descending in a spiral Form, almost perpendicular to the Horizon to the Eastward of us which is the Situation of *Strettham*, and at about 2 Miles distant from us. At a little before my Barometers stood thus, 29. $\frac{7}{10}$ $\frac{3}{100}$, and 30. $\frac{2}{10}$ $\frac{2}{100}$; and continued successively rising and falling during the Storm, but very inconsiderably.

Upon hearing two Houses were damaged, situate at the Foot of the Hill on which the mineral Wells are, fronting the East, by the Wood-Side, I went next Day to view them. The House to the South, which is a public House kept by Mr. *Howard*, seem'd to have received the greatest Shock. Some of the Family being up, the front Door stood partly open, when the Storm began: The upper half was of Glass, fram'd like a Sash-Window, having two sliding Shutters, one on each Side, which had not been taken down. The Glass between them was shatter'd to Pieces, but the Shutters no-ways touch'd, except that a Nail in one of them was forc'd in a little way. To the Door-Post, on the left Hand, hung by an iron Pin an iron Bar, which served to fasten the Door at Night: This Pin was driven out of the Post, and the Bar considerably bent, and in divers Places melted in small Spots, as were the Hinges of the Door, chiefly upon the Edges in both, and the Door-Post split. A Sheet of Lead on the Pediment, or Shelter over the said Door, was raised, and partly rolled
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up at one Corner; the Cornice underneath being torn off without being split, a good Part of the Tiling near the Eaves and over the Pediment was loosened, and some Tiles beat off, and the Lathing and some of the Moldings of the Windows had taken Fire.

In a Bed-Chamber fronting the Road, on the second Floor where Mr. *Howard* lay, three Boards of the Lining of the Room, on the East Side, were driven inwards five or six Inches at one End; but at the other the Nails were a little loosened only. In a Garret over this Bed-Chamber, the upper Part of a Bed-Post was sliver'd; and nearly over where this Bed stood, a large Hole was broke in the Roof, on the West Side, just by where one of the Chimneys goes up; the Chimneys having all additional Funnels of Brick-Work on the Top, of a roundish Form, and plaster'd: These were struck, and inclin'd to the North, especially that which was on the South End of the House, the Plaster being beat off, and some of the Bricks broke down. There were about 13 Persons in this House, none of which received any Hurt; tho' a Lad, who was in the Kitchen, into which the Door open'd, before-mention'd, and the Window of which (near where he was standing) had several Panes of Glass broke, must certainly be much expos'd. He inform'd me, among other things, that the Fire flew about him in Sparks, like those which fly out of burning Charcoal, but larger, and snapping as they do. Some Pieces of Glass were shew'd me, which I found to have been melted, one of which I take the Liberty of laying before you.

The adjoining House, inhabited by Mr. *Figgins*, had the Plastering beat off in the Front in Patches, and one of the Chimneys crack'd for a great Length. In the Kitchen Window-Frame, one of the cross Pieces, near the middle of the Window, had a Chip struck off from it about 5 Inches in Length, and at one End about a Quarter of an Inch thick, but thin at the other, and near the Width of the Frame, but none of the Glass broke, nor the Lead bent, tho' in a manner contiguous with the Splinter beat off. The same thing happen'd to a Parlour-Window, on the other End of the House; both the Shivers were found directly opposite to the Windows, at ten or twelve Yards distant in the Road.

In a small Garret (which is next to Mr. *Howard's* House) where two Maid-Servants lay, the Plaster was broken, to Appearance, inwards, on opposite Sides of the Room, and near the Feet of the Bed, which stood on each Side about three Quarters of a Yard from the Wall. The Breach on the East Side, near a Window (some Panes of the Glass of which were broken) was opposite to the Vailings of the Bed, which were singed, and a Hole burnt thro' them big enough to receive the End of one's fore Finger. On the opposite Side, just by the Chimney, another Breach was made, of the same Height, in the Wall, which was continued downwards for about a Yard, but the Curtains not at all singed. Directly against this Breach, one of the Maids (who had got up) sat on the Bed's Side, who was instantly struck down, but received no Hurt: Upon enquiring of her, whether she seem'd to receive a Blow on
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any particular Part of her Body? she replied, she was struck all over alike.

But the most remarkable, tho' the least terrible Effect, appeared on the Frame of a Pannel of Wainscot, about five Feet long, and about one and a half wide, in the Parlour fronting the East: On this Pannel a Landscape is painted, and the Moulding belonging to it had been gilt, but on the last painting the Room, the Gilding was cover'd with the same Paint: That which cover'd the gilt Moulding was stripped off in irregular ragged Streaks throughout, so that the Gilding appeared as fresh as it may be thought to have look'd when it was painted at first: And as the Gilding does not seem to have been affected, so neither does the Paint appear to have been crack'd any where, but where the Gilding lay under.

If it be supposed, that the Lead in the Paint was melted by the Lightning, it will be difficult to account for it, that it should *not at all affect* the Paint contiguous with that which was upon the Gilding; tho' we suppose a Resistance to have been made by the Leaf-Gold, and to have contributed to the producing the mention'd Effects. But fearing I have been already too prolix, I ask Leave to subscribe myself, with the greatest Respect,

S I R,

Your and the Royal Society's

Tooting, June 23.

1748.

most humble and most obedient Servant,

H. Miles.